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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,457

12/29/2004

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EXAMINER

O TOOLE, COLLEEN J

ART UNIT

PAPER NUMBER

2816

MAIL DATE

DELIVERY MODE

06/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,457

Applicant(s)

SUZUKI ET AL.

Examiner

Colleen O'Toole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/15/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amended claims 1, 13, and 14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno (U.S. Patent 6,218,878) in view of Reimann (U.S. Patent 6,486,720).

Newly added claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno in view of Reimann.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno in view of Reimann. With respect to claim 1, Figure 16 of Ueno discloses a flip-flop, which includes: a master circuit (161) comprising a first data reading circuit (162), a first data-hold circuit (163), and a first current source circuit (164) connected to the first data reading circuit and the first data-hold circuit; and a slave circuit (166) comprising a second data reading circuit (167), a second data-hold circuit (168), and a second current source circuit (169) connected to the second data reading circuit and the second data-hold circuit. Figure 16 of Ueno does not disclose that the first data-hold circuit (163) comprises transistors of a size smaller than the transistors of the first data

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reading circuit (162), and the second data-hold circuit (168) comprises transistors of a size smaller than the transistors of the second data reading circuit (167). However, Reimann discloses that the size of the transistors of data holding circuit (HG) are set to be smaller than the size of the transistors of the data reading circuit (SG) provides an advantage of increasing the cut-off frequency of the circuit (see abstract, and lines 12-15 of Col. 3). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify the circuit in Figure 16 of Ueno by setting the size of the transistors in each of the respective data holding circuit to be smaller than the size of the transistors in the respective data reading circuit (i.e., setting the size of transistors in 163 to be smaller than the size of transistors in 162, and the size of transistors in 168 to be smaller than the size of transistors in 167) for the purpose of increasing the cut-off frequency of the circuitry, and thus improving the performance of the circuitry. Note that this modification meets all the limitations of claims 1 and 13 through 15 and it is seen the in the operation of the flip-flop in the modification of Figure 16 of Ueno that the flip-flop operates in an operating speed range in which the currents through the first and second data-hold circuits are lower than the than the currents through the first and second data reading circuits (because of transistors in the first and second data reading circuits are larger in size than the transistors in the first and second data holding circuits, respectively), and the currents through the first and second data-hold circuits are equal to or lower than the permissible current level of the transistors that constitute the data-hold circuits. Also note that, because all structures of the claims are fully met, so the functional limitations of these claims are also fully met in the

operation of the flip-flop. It is also noted that the sum of current through 162 and 163 is equal to the first Current source (164, because current source 164 connected to provide tail current to 162 and 163), and that the same of current through 167 and 168 is equal to the second current source (169, because current source 169 connected to provide tail current to 167 and 168). It is also noted that newly added dependent claim 15 was previously a limitation in claim 1, and is rejected for the reasons stated above.

Response to Arguments

3. Applicant's arguments filed May 2nd, 2007 have been fully considered but they are not persuasive.

Applicant asserts that Ueno and Reimann do not disclose that the size of the transistors constituting the data-hold circuit is smaller than the size of the transistors constituting the data reading circuit. Examiner respectfully disagrees. Reimann discloses that the size of the transistors of data holding differential pair (HG) are set to be smaller than the size of the transistors of the data reading differential pair (SG) provides an advantage of increasing the cut-off frequency of the circuit (see abstract, and lines 12-15 of Col. 3). Therefore, the current that flows through the data-hold circuit (HG) is lower than the current that flows through the data reading circuit (SG).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that without changing connection of the current source, the current that flows through the data-hold circuit [Q3, Q4 and Q6] is lower than the current that flows

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through the data reading circuit [Q1, Q2, and Q5] according to the operating speed of the flip-flop circuit) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colleen O'Toole whose telephone number is (571) 270-1273. The examiner can normally be reached on M-F 8:30-5:00pm EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (571) 272-1769. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJO
CJO


LINH MY NGUYEN
PRIMARY EXAMINER